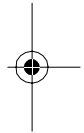
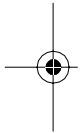


OWNER'S MANUAL

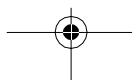
Model 27 AC-DC Video Cassette Player

Please read before using this equipment.



Cat. No. 16-419

OPTIMUS[®]



FEATURES

Your Optimus Model 27 AC-DC Video Cassette Player (VCP) is lightweight, easy to use, and has many convenient features. Its dual power options let you enjoy it almost anywhere — at home or the office, or even in your vehicle. The VCP's compact size and front-loading design are especially ideal for vans, RVs or campers, and the supplied remote control lets you control it from a distance.

Its other features include:

Automatic Power-On — automatically turns on the VCP's power when you load a video cassette.

Quick Start Mechanism — automatically starts playback when you load a video cassette.

Automatic Play Speed Selection — senses the tape's recording speed and automatically adjusts the VCP for proper playback.

Automatic Rewind — rewinds the tape when it reaches the end.

Visual Search/Double-Speed Playback — lets you play a tape at a faster speed to quickly locate a specific portion of the tape.

Freeze-Frame — lets you pause the tape during playback so you can view a single frame.

Automatic Repeat — lets you set the VCP to automatically rewind and replay the video tape when it reaches the end.

Soft-Touch Controls — let you easily control the VCP's functions.

We recommend that you carefully read this owner's manual. It was prepared to assist you with the initial setup procedures and to guide you in the everyday operation of the VCP.

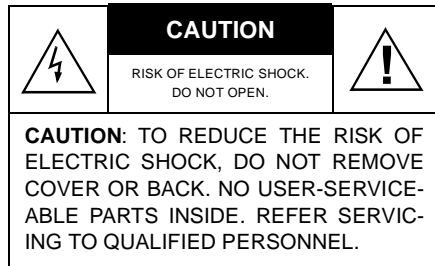
For your records, we urge you to record your VCP's serial number in the space below. The serial number is located on the back of the VCP.

Serial Number: _____

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All Rights Reserved.

Radio Shack and Optimus are registered trademarks used by Tandy Corporation.

Warning: To prevent fire or shock hazard, do not expose this product to rain or moisture.



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

Warning: Do not use controls or adjustments not specified in this manual. If you remove the cover or attempt to service this unit, you might expose yourself to dangerous voltage.

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PREPARATION

ACCESSORIES

Your VCP includes the following connection accessories. Be sure to unpack all of them before you throw away the packing material.

300-to-75-ohm Adapter — connects a 300-ohm antenna wire to the VCP's **ANT.IN** terminal.

AC Adapter — lets you power the VCP from a standard AC outlet.

CHOOSING A LOCATION

For safe and effective operation of your VCP, consider the following when you choose an installation location.

- Place the VCP away from direct sunlight and heat sources, such as radiators and heat vents.
- Do not place the VCP in a dusty or humid area.
- Do not block the VCP's top and bottom ventilation holes. For example, do not set the VCP on carpet.
- Place the VCP on a flat surface, away from strong vibrations or magnetic fields.
- Do not set anything on top of the VCP.

75-ohm Coaxial Cable — connects the VCP's **RF.OUT** terminal to your TV's 75-ohm antenna terminal.

VCP/TV DC Power Cord — lets you power the VCP and a portable TV (not supplied) from your vehicle's cigarette lighter socket.

MAKING CONNECTIONS

You can connect your VCP to a TV/monitor, a VCR (video cassette recorder), or both. To help you make the right connections:

- If your TV/monitor does not have separate audio and video input jacks, use the connections described in "Connecting a Standard TV."
- If your TV/monitor has separate audio and video input jacks, use the connections described in "Connecting a TV/Monitor."
- If you want to connect a VCR to the VCP for copying tapes, use the connections described in "Connecting a VCR."

Notes:

- A "standard TV" can receive broadcast TV signals from an antenna or cable system, and can be tuned to different channels to view the broadcasts. Some standard TVs are equipped with only a 75-ohm cable/antenna jack, while others might have separate audio and video input jacks.
- A "TV/monitor" can receive signals from other video equipment (such as your VCP), but unlike a standard TV, it cannot receive (tune in) TV broadcast signals. A TV/monitor typically has separate audio and video input jacks.

Note to the CATV System Installer:

This reminder is provided to call the CATV system installer's attention to article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

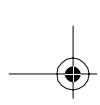
Connecting a Standard TV

Follow these steps to connect the VCP to a standard TV that has a 75-ohm cable jack, but does not have separate audio and video input jacks.

1. Disconnect the antenna or cable wire from your TV's VHF antenna terminal and connect it to the VCP's **ANT.IN** terminal.

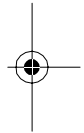
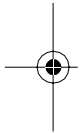
Notes:

- If your antenna has a 300-ohm wire, connect the wire to the 300-ohm terminals on the supplied 300-to-75-ohm adapter. Then connect the adapter's 75-ohm plug to the VCP's **ANT. IN** terminal.
 - If you have a VHF/UHF splitter connected to your TV, disconnect the antenna wire from the splitter's input terminal and leave the splitter connected to the TV.
 - If you have a separate UHF antenna, leave the UHF antenna wire connected to the TV.
2. Using the supplied 75-ohm coaxial cable, connect the VCP's **RF.OUT** terminal to the TV's VHF antenna terminal (or the splitter's input terminal).



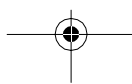
Connecting a TV/Monitor

Follow these instructions to connect your VCP to either a TV monitor or a standard TV that has separate audio and video input jacks.



Connect the VCP's **AUDIO** and **VIDEO OUT** jacks to the TV/monitor's audio and video input jacks using video-quality shielded cables (not supplied).

Caution: You must use video-quality cable for this type of connection. Do not use standard audio cable. Your local Radio Shack store sells the proper type of cable.



Connecting a VCR

Follow these instructions to connect your VCP to a VCR so you can copy video tapes.

COPYRIGHT INFORMATION: Most material performed in public, such as concerts, plays, and movies, or distributed on prerecorded video tapes is copyrighted. The unauthorized recording or duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to record a broadcast television program for private (in-home) viewing.

Connect the VCP's **AUDIO** and **VIDEO OUT** jacks to the VCR's audio and video input jacks using video-quality shielded cables (not supplied).

Notes:

- You must use video-quality cable for this type of connection. Do not use standard audio cable. Your local Radio Shack store sells this type of cable.
- If your TV has separate audio/video input jacks, you can connect the VCR's audio/video output jacks to your TV's input jacks using another video-quality shielded cable. This lets you watch a tape while you copy it (see "Copying a Video Tape").

Connecting a Video Processor

To improve the quality of copied tapes, you can connect a video processor (not supplied), such as Radio Shack Cat. No. 15-1962, to the VCP.

Note: Most video processors are equipped with separate audio and video jacks. If your TV/monitor does not have separate audio/video input jacks, you must use a video processor with a built-in RF modulator or connect a separate RF modulator.

This diagram shows how you can connect a video processor between your VCP, VCR, and/or TV.

SETTING THE CHANNEL SWITCH

CHANNEL, located on the back of the VCP, determines on which channel (3 or 4) a standard TV receives the VCP's signal. Set it to **3** for channel 3, or **4** for channel 4.

Notes:

- If possible, set **CHANNEL** to a channel on which you do not receive regular television broadcasts.
- The **CHANNEL** setting has no effect on a TV monitor, nor does it affect a standard TV's operation when the VCP is turned off or not playing a tape.

CONNECTING POWER

Using the supplied adapters, you can power your VCP from either a standard AC outlet or from your vehicle's cigarette lighter socket.

Cautions:

- If you use the VCP in areas of high humidity or move it from a cold area to a warm one, allow it to warm up for about 2 hours before you plug it

in and operate it. This allows any damaging moisture to completely evaporate.

- If moisture has formed inside the VCP, it might not operate after you connect power (see "DEW Protection System").

Using AC Power

The supplied AC adapter lets you power the VCP from a standard AC outlet. To use AC power, connect the AC adapter's barrel plug to the VCP's **DC IN 12V** jack, then plug the AC adapter's power cord into a standard AC outlet.

Cautions:

- The supplied AC adapter provides 14 volts DC power and delivers 850 milliamps. Using an adapter that does not meet these specifications could damage the VCP, your TV/monitor, or the adapter.
- When you unplug the AC adapter, grasp the adapter's plug, not its cord.

- Always plug the AC adapter into the recorder before you plug it into the AC outlet. Always unplug the AC adapter from the outlet before you unplug it from the recorder.

into the VCP's **DC IN 12V** jack, and plug the other into the TV's DC 12-volt jack. Then connect the cigarette-lighter plug into the vehicle's cigarette-lighter socket.

Using Vehicle Battery Power

The supplied DC adapter lets you power your VCP and a portable TV (not supplied) from your vehicle's cigarette lighter socket.

Cautions:

- The TV you use must have a DC 12-volt jack (with the center tip set to positive) that accepts the adapter's plug (5.5 x 2.1 mm (depth/diameter)).
- Always plug the DC adapter into the VCP and TV before you plug it into the cigarette lighter socket. Always unplug the DC adapter from the cigarette lighter socket before you unplug it from the VCP and TV.
- The VCP continues to draw a small amount of current from the vehicle's battery even after you turn it off, so be sure to disconnect the DC adapter from the cigarette lighter socket when you are not using the VCP and TV, to prevent your vehicle's battery from being drained.

Caution: Before plugging the power cord's cigarette-lighter plug into your vehicle's cigarette-lighter socket, make sure the knurled ring is screwed firmly onto the plug.

DEW PROTECTION SYSTEM

Your VCP's dew protection system helps prevent damage caused by moisture that can form on the VCP's tape heads, such as when you move the VCP from a cold area to a warm one. When the system senses moisture on the tape head(s), DEW turns on and the VCP does not let you play a tape.

The DC power cord has two barrel plugs on one end and a cigarette-lighter plug on the other end. To connect DC power, plug one of the adapter's barrel plugs

Caution: To avoid damaging the VCP mechanism, do not try to load a tape while the DEW indicator is on.

If DEW turns on, disconnect the VCP's power for about 2 hours, then plug it back in. If DEW turns off, you can proceed with normal operation of your VCP. If DEW turns on again, try unplugging it again, or take it to your local Radio Shack for assistance.

INSTALLING THE REMOTE CONTROL'S BATTERIES

The remote control requires two AAA batteries (not supplied) for power. For the best performance and longest battery life, we recommend alkaline batteries, such as Radio Shack Cat. No. 23-558.

1. To remove the battery compartment cover, slide it in the direction of the arrow.

2. Place the batteries in the compartment as indicated by the polarity symbols (+ and -) marked inside the compartment.

Caution: Use only fresh batteries of the required size and type.

3. Replace the cover.

Notes:

- If you will not be using the remote control for a month or more, remove the batteries.
- You can use the remote control up to a distance of about 23 feet (7 meters) in front of the VCP. If it does not operate properly within this distance, replace the batteries.

Warning: Always dispose of old batteries promptly and properly.

OPERATION

USING THE REMOTE CONTROL

The control buttons on the remote control are identical to those on the front of the VCP. To use the remote control, be sure that the front end of it is pointing with a clear path toward the front of the VCP, then press the desired button(s).

sette door with the main label facing up and the spine label facing out. Then gently push on the center of the tape's spine until the VCP pulls the tape all the way in. TAPE IN then PLAY lights steadily, and the tape automatically begins to play.

4. To stop the tape during play, press **STOP**. PLAY turns off and the tape stops.

PLAYING A VIDEO TAPE

1. Press **POWER** to turn on the VCP. The red POWER indicator lights steadily.

Note: To start playback again, press **PLAY(x2)**.

2. Turn on the TV/monitor. If you are using a standard TV, tune it to the same channel (3 or 4) to which you set the VCP's **CHANNEL** switch. If you are using a TV monitor, switch it to the video setting.
3. To load a video cassette tape, insert the tape halfway into the VCP's cas-

5. To eject the tape, press **EJECT**. **TAPE IN** turns off and the VCP ejects the tape.

The VCP automatically stops the tape when it reaches the end. To stop the tape at any time during fast-forwarding or rewinding, press **STOP**.

Or, to stop fast-forwarding and rewinding and automatically begin play, press **PLAY(x2)**. The tape stops, **PLAY** lights, then the tape begins to play.

6. Press **POWER** to turn off the VCP. The red **POWER** indicator turns off.

Note: To slow the tape down to visual search speed (see "Visual Search/Double Speed Playback") and view it during fast-forwarding or rewinding, press and hold **FAST-F** or **REW**. **PLAY** lights along with **FF** or **REW**, and the tape begins to play forward or backward at high speed.

FAST-FORWARD/REWIND

To fast-forward or rewind the tape at high-speed, with the tape stopped, press **FAST-F** or **REW** (rewind). **FAST-F** or **REW** lights steadily, and the tape fast-forwards or rewinds.

Visual Search/Double-Speed Playback

Your VCP gives you two ways to view a tape at a faster speed and help you find a particular section on the tape — visual search or double-speed playback.

Note: No picture appears on the TV/monitor when you fast-forward or rewind the tape from a stopped position.

Note: Visual search lets you search in either direction. Double-speed playback lets you search forward only.

To use visual search, press **PLAY(x2)** to begin normal play, then press **FAST-F** to search forward or **REW** to search backward. The FAST-F or REW indicator lights steadily along with the PLAY indicator, and the tape begins to play either forward or backward at a faster speed.

and the picture is of a lesser quality than during normal playback.

- Tapes recorded at EP (extended play) speed provide the best picture during visual search and double-speed playback.

To use double-speed playback, press **PLAY(x2)** to begin normal play, then press **PLAY(x2)** again. The tape begins to play at twice the normal speed.

Press **STOP** to stop visual search or double-speed playback, or **PLAY(x2)** to resume normal playback.

Notes:

- To increase the visual search speed, press and hold **FAST-F** or **REWIND** after you start visual search. When you release the button, the VCP resumes normal playback.
- During visual search and double-speed playback, there is no sound

AUTOMATIC FEATURES

Auto Power-On

To use the VCP's auto power-on feature, with the VCP's power off, simply load a video cassette into the VCP. The red POWER indicator lights steadily, then CST.IN and PLAY light steadily and the tape begins to play.

Auto Playback

To use the VCP's auto playback feature, with the VCP's power on, simply load a video cassette into the VCP. CST.IN and PLAY light steadily, and the tape automatically begins to play.

Auto Repeat Playback

You can set the VCP to continuously play, rewind, then repeat a tape. To set the VCP for auto repeat playback, before or during normal playback, press **AUTO REPEAT** so the AUTO REPEAT indicator lights steadily.

After about 5 minutes, the VCP automatically resumes normal playback. To resume normal playback sooner, press **PLAY(x2)**.

Notes:

- During freeze-frame, there is no sound and the picture is of a lesser quality than during normal playback.
- Tapes recorded at EP speed provide the best picture during freeze-frame.

The tape automatically rewinds when it reaches the end, then begins to play again.

To end auto-repeat, press **AUTO REPEAT** so the A.REPEAT indicator turns off.

FREEZE-FRAME

The VCP lets you stop ("freeze") the tape and view a single frame. To use freeze-frame, during normal play, press **STILL**.

TRACKING CONTROL

When playback of a tape begins on your VCP, its built-in tracking control automatically aligns the playback heads to the recorded track.

For poor quality or worn tapes, you might need to further adjust the VCP's tracking manually. To adjust the picture tracking manually, press and hold down **TRACKING +** or **-** until the picture improves.

WATCHING BROADCAST TV

To watch broadcast TV on a standard TV connected to the VCP, simply press **POWER** to turn off the VCP, then tune to the desired station on the TV.

COPYING A VIDEO TAPE

If you connected a VCR to the VCP, you can use your VCP to play back a video cassette tape while the VCR records it.

Follow these steps to copy a video cassette tape.

1. Load a pre-recorded tape into the VCP.
2. Load a blank video cassette, or one you want to record over, into the VCR.
3. If the VCR has an input select switch, set it to the video setting.

Note: If the VCR does not have an input select switch and you later want to record VHF/UHF/cable channels on the VCR, you might need to disconnect the VCP from the VCR's audio/video input jacks.

4. Select the desired recording speed on the VCR.

5. Begin recording on the VCR.
6. Press **PLAY(X2)** on the VCP to begin tape playback.
7. To watch the tape while you copy it, turn on the TV/monitor. If you are using a standard TV, tune it to the same channel (3 or 4) to which you set the VCP's **CHANNEL** switch. If you are using a TV monitor, switch it to the video setting.

TROUBLESHOOTING GUIDE

If your VCP is not performing as it should, these suggestions might help. If you still cannot solve the problem, take the VCP to your local Radio Shack store for assistance.

SYMPTOM	POSSIBLE CAUSES	REMEDY
No power.	Power cord is not connected. Power is turned off.	Plug the AC adapter into an AC outlet or connect the DC adapter to your vehicle's cigarette-lighter socket. Press POWER so its red indicator lights.
Picture is poor during playback.	The TV is not set to the proper channel. The TV's fine tuning is not set correctly.	Tune the TV to the same channel to which the VCP's CHANNEL switch is set. Fine-tune your TV.
Noise during playback	Video heads are dirty.	Bring your VCP to a Radio Shack store for cleaning/servicing.
No picture during playback	The TV is not tuned to the proper channel.	Tune the TV to the same channel to which the VCP's CHANNEL switch is set.
Interference in the playback picture.	The VCP is not tracking properly.	Adjust TRACKING + / -
Control buttons do not work when the power is on and a cassette is inserted.	Condensation on video heads / dew protection system is active.	Unplug the VCP for about 2 hours, or until DEW does not turn on when you plug it in, then proceed.
Broadcast TV programs cannot be seen.	Connections are incorrect.	Recheck the connections.
The remote control does not work.	The batteries in the remote control are weak or dead.	Replace the batteries.

CARE AND MAINTENANCE

Your Optimus Model 27 AC-DC Video Cassette Player is an example of superior design and craftsmanship. The following suggestions will help you care for the VCP so you can enjoy it for years.



Keep the VCP dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Handle the VCP gently and carefully. Dropping it can damage circuit boards and cases and can cause the VCP to work improperly.



Use and store the VCP only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the VCP away from dust and dirt, which can cause premature wear of parts.



Wipe the VCP with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it.

Modifying or tampering with the VCP's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your VCP is not performing as it should, take it to your local Radio Shack store for assistance.

CLEANING THE VIDEO HEADS

Dirty video heads can cause the VCP's picture to be blurred during playback, even when the video signal is clear. We recommend that you clean the heads only when such problems occur. For proper head cleaning, follow the instructions in a head-cleaning kit, such as Radio Shack Cat. No. 44-1203, or take the VCP to your local Radio Shack for regular servicing.

VIDEO TAPE TIPS

Although a video cassette tape is built for durability, you should handle it with care.

- Keep the video cassette in its protective box when you are not using it.
- Do not store video cassettes in high-temperature, high-humidity locations. Store them in a cool, dry, dust-free environment.
- Store your video cassettes on their ends, not on their sides. This prevents improper settling of the cassette's spools.

- A video cassette's tape can become wound too tightly around the cassette's spools after numerous playings. This can cause the cassette to improperly load and automatically eject when you load it. On most video cassettes, there is a brake-release plunger on the bottom-center of the cassette. Use the tip of a pen or pencil to press the plunger. This loosens the tape.

REPLACING THE FUSE

A fuse located on the back of the VCP protects it from short circuits and DC power surges. If the VCP stops working and the POWER indicator does not turn on, replace the fuse. Use a fuse rated at 2 amps and at least 125 volts. Your local Radio Shack store sells this type of fuse.

Caution: For continued protection against the risk of fire hazard, replace the fuse only with one of the required size and type.

Warning: To prevent a shock hazard when you replace the fuse, be sure the VCP is turned off and its power is disconnected.

Follow these steps to replace the fuse.

1. Unscrew the fuse compartment cap (**FUSE**) on the back of the VCP, then remove the cap. The fuse stays in the cap when you remove it from the compartment.
2. Remove the old fuse and place a new fuse in the cap. Then replace the cap and screw it back into the compartment.

THE FCC WANTS YOU TO KNOW

Your VCP might cause TV or radio interference even when it is operating properly. To determine whether your VCP is causing the interference, turn off your VCP. If the interference goes away, your VCP is causing the interference. Try to eliminate the interference by:

- Moving your VCP away from the TV or radio.
- Connecting your VCP to an outlet that is on a different electrical circuit from the TV or radio.
- Contacting your local Radio Shack store for help.

If you cannot eliminate the interference, the FCC requires that you stop using your VCP.

SPECIFICATIONS

GENERAL

Television System	NTSC, US TV Standard
Tape Width	1/2 Inch
Tape Speed	SP 1.31 Inches/Sec LP 0.65 Inches/Sec EP 0.43 Inches/Sec
RF Converter	Built-In VHF Converter
Converter Output	Channel 3 or 4
Terminals Antenna Input/Output	F-Type
Video/Audio Output	Phono Connector
Power Requirement	AC 120V $\pm 10\%$, 60Hz $\pm 0.5\%$ DC 12V (13.2-13.8)
Power Consumption	AC 16 W Approx. DC 14 W Approx.
Dimensions (HWD)	3 1/2 x 10 5/8 x 11 7/16 Inches (89 x 270 x 290 mm)
Weight	7 lbs 5 Oz. (3.3 Kg)

ELECTRICAL

Video Output Level	1 Vp-p
Video Output Impedance75 ohms
Audio Output Level	-8 dBm
Video S/N Ratio:	
SP	More Than 43 dB
LP/EP	More Than 40 dB
Audio S/N Ratio:	
SP	More Than 42 dB
LP/EP	More Than 40 dB

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 90 days from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

We Service What We Sell

9/94

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Printed in Korea